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HAWK LOW ALTITUDE
SURFACE-TO-AIR MISSILE
UNITED STATES

GOA LOW ALTITUDE
SURFACE-TO-AIR MISSILE
USSR

1. WEAPON CATEGORY:

SURFACE-TO-AIR -- SA-3.

2. PRODUCTION:

MOSCOW/TUSHINO AIRCRAFT PLANT 82. THIS PLANT IS KNOWN TO HAVE PRODUCED THE SA-1, PROBABLY THE SA-2, AND POSSIBLY OTHER SURFACE-TO-AIR MISSILES.

3. RESEARCH & DEVELOPMENT:

THERE IS EVIDENCE THAT THE SA-1 (CUBIL) AND SA-2 MISSILES WERE DEVELOPED BY THE DESIGN BUREAU OF S.A. LOVACHKIN AT AIRCRAFT PLANT 301, MOSCOW/KHIMKI. THE SIMILARITY OF DESIGN BETWEEN THE SA-1, SA-2, SA-3, AND GRIFFON MISSILES INDICATE THAT THIS DESIGN BUREAU IS PROBABLY RESPONSIBLE FOR THESE AND POSSIBLY OTHER AIR DEFENSE MISSILE SYSTEMS. FLIGHT TESTING AND PROGRAM EVALUATION IS CARRIED OUT AT THE KAPUSTIN YAR. MISSILE TEST CENTER.

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4. TROOP TRAINING:

THERE ARE NUMEROUS SITES THROUGHOUT THE SOVIET UNION WHERE TROOPS ARE TRAINED. KORDON SAM TRAINING FACILITY IS ONE.

5. DEPLOYMENT:

THE INITIAL OPERATIONAL DEPLOYMENT OF THE GOA SYSTEM WAS CONFIRMED IN JULY 1961. SINCE THEN SA-3 SITES HAVE BEEN DEPLOYED IN SEVERAL ISOLATED LOCATIONS WITHIN THE SOVIET UNION. THEY ARE USUALLY COLLOCATED WITH SA-2 SAM SITES IN COASTAL AREAS AND AROUND MOSCOW AND LENINGRAD.

6. MISSILE DESCRIPTION:

THE GOA IS A SHORT-RANGE, TWO STAGE, SOLID PROPELLANT, TACTICAL ANTI-AIRCRAFT DEFENSE MISSILE SYSTEM, WITH LOW-ALTITUDE CAPABILITY, AND HIGHLY MOBILE.

LENGTH
 RANGE (SLANT RANGE)
 ALTITUDE FT (APPROX)

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WARHEAD.....HE, FRAGMENTATION

MAXIMUM VELOCITY....MACH 2.5

GUIDANCE.....COMMAND

7. ORGANIZATION:

UNKNOWN

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25XPage 248. SITE DESCRIPTION:

A TYPICAL SA-3 SAM SITE CONSISTS OF . 25
FOUR REVETTED LAUNCH PADS, A REVEL-
TED GUIDANCE AREA, A REVELED HOLDING
AREA, AND OTHER ADMINISTRATIVE/SUPPORT
BUILDINGS. THE LAUNCH PADS ARE APPROX-
IMATELY 40 FT IN DIAMETER AND HAVE WALLS,
3-5 FT IN HEIGHT AND 15-20 FT THICK AT
THE BASE, SURROUNDING THEM. EACH PAD
CONTAINS A 20 FT LONG TRAINABLE LAUNCHER
CAPABLE OF SUPPORTING AND LAUNCHING TWO
MISSILES.

9. ELECTRONICS:

GUIDANCE AND MISSILE TRACKING, - LOW BLOW. 25
RADAR.
ACQUISITION FLAT FACE RADAR.
A SEVERE LIMITATION HAS BEEN PLACED ON THE
ANALYSIS OF THE SA-3 SYSTEM BY THE LACK
OF DETAIL ON THE LOW-BLOW FIRE CONTROL
RADAR AND THE SPECIFICS ON THE GUIDANCE
SYSTEM.

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